Amendments in the Claims

1. (currently amended) A sensor comprising:

a) a sensor head package containing a micromachined accelerometer comprising:

i) a base layer;

ii) a ~~an~~ frame connected to and above said base layer;

iii) a proof mass within said frame;

iv) a flexure connecting said proof mass to said frame, said flexure including a piezoresistive element; and

v) a silicon encapsulation layer above said frame, said proof mass and said flexure, wherein said proof mass and said flexure are released from said base layer and from said encapsulation layer after deposition of said encapsulation layer; and

b) circuitry electrically connected to said piezoresistive element and remotely disposed from said sensor head package.

2. (original) The sensor of claim 1, wherein a largest linear dimension of said sensor head package is less than about 0.5 mm.

3. (original) The sensor of claim 1, wherein said sensor head package is configured for implantation into a middle ear.

4. (original) The sensor of claim 3, wherein said sensor head package is configured as a replacement for one or more ossicular bones.

5. (original) The sensor of claim 1, wherein said sensor head package includes a barb.

6. (original) The sensor of claim 1, wherein said sensor head package has a pointed tip.

7. (original) The sensor of claim 6, further comprising a flexible needle shaft having an end affixed to a surface of said sensor head package facing away from said pointed tip.

8. (original) The sensor of claim 7, further comprising at least one wire running along said shaft and connecting said sensor head package to said circuitry.

9. (original) The sensor of claim 1, further comprising a passivation layer disposed on said piezoresistive element.

10. (original) The sensor of claim 1, wherein said flexure is coated with a passivation layer.

11. (original) The sensor of claim 1, wherein said proof mass is substantially rectangular.

12. (original) The sensor of claim 1, further comprising a bond pad disposed on top of said encapsulation layer and substantially laterally aligned with said proof mass.

13. (original) The sensor of claim 1, wherein a gap separating said proof mass from said frame is about 2 microns.

14. (original) The sensor of claim 1, wherein said base layer has a thickness of about 200 microns.

15. (original) The sensor of claim 1, wherein said proof mass includes holes.

16. (original) The sensor of claim 1, further comprising an electrically isolated vertical contact within said encapsulation layer.

17. (original) The sensor of claim 1, wherein said sensor head package does not include any electrical circuit element other than a resistor, a capacitor, or an inductor.

18-27. (canceled)